

**REMARKS**

Review and reconsideration of the Office Action dated November 10, 2004, entry of Amendment E filed February 10, 2005, and entry of present Amendment F is respectfully requested.

Applicant respectfully requests that the Examiner enter Amendment E prior to the entering of the present Amendment.

In view of the imminent approaching of the end of the Six Months' Statutory Period to respond to the Final Office Action of November 10, 2004, and in order to avoid abandonment of the application, a RCE is being filed herewith so Applicants' Amendments E and F may be timely entered and formally considered by the Examiner.

**In addition, Applicant respectfully request a telephone interview with the Examiner prior to the issuance of the First Office Action on this case.**

In view of the Examiner's indication that the limitation "sulphur free" is part of the preamble of the claim, Applicants amended all independent claims to make it clear that the above limitation forms part of the body of the claim.

Claims 4 and 12 have been canceled.

All independent claims directed to the combustible gas have been amended to clarify that **A and B impart odor to the odorless gas**. Support for the claim amendment can be found on pages 1 and 3 of the specification as originally filed.

No new matter has been added to the claims.

Applicants respectfully requested that the Examiner consider all arguments filed during the response to the previous Office Actions.

Office Actions.

Basically, the Examiner rejects:

Claims 1, 5-7, 9 and 13-24 under 25 U.S.C. 102(b) as being anticipated by Yoshida et al. US 4,487,613.

Claims 2-3 and 10-11 are rejected under 35 U.S.C. 103(a) as being obvious over Yoshida '613.

**Issue 1**

Applicants note that the present set of claims contain 7 independent claims, namely Claims 1, 9, 19, 22, 24, 25, and 26. In view that the Examiner indicated that Claims 25-26 are allowable. The following remarks are addressed to the rejected independent claims, Claim 1, 9, 19, 22, and 24, because if these claims are not anticipated or obvious, it follows that none of the other rejected dependent claims are anticipated or obvious.

**Claim 1**

Claim 1 is directed to a **method of imparting odor** to an odorless gas by adding an odorizing composition having A, B (having specific boiling point and molecular weight), and optionally C. Furthermore A and B act as a warning signal to warn the presence of the combustible gas.

Applicants note that the Yoshida reference fails to teach:

1) a nitrogen compound having a molecular weight between 80 and 160. Yoshida teaches **2-methoxy-3-isobutyl pyrazine**,

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**which has a molecular weight of 166.2224. (See Attachment B filed with Amendment E)**

2) a nitrogen compound having a boiling point from 90 to 210°C. **2-methoxy-3-isobutyl pyrazine has a boiling point of 215°C. (See Attachment A filed with Amendment E);**

3) a **sulfur free** odorizing composition.

Applicant would like to point out to the Examiner that A and B were not added to the odorless gas to increase the odor on the gas because the gas is odorless. **A and B impart odor to the odorless gas.**

Applicants note that the disclosed formulas of Yoshida (columns 5-6) show that preferred formulas comprise sulfide-containing components as the main ingredients. In contrast, 2-methoxy-3-isobutyl pyrazine is only present in an amount of 0.5 parts per weight. Accordingly, Yoshida mentions the use of 2-methoxy-3-isobutyl as only an "odor boosting effect" (column 6, lines 53-56). **In other words, 2-methoxy-3-isobutyl pyrazine is not disclosed as a genuine odorizing agent, but rather as a component which can enhance the odor of the main (sulfide containing) odorizing components.**

In addition, Applicants note that the claim requires that the odor must be capable of acting as a "warning signal." The odor must be unmistakable and recognizable, which is inherently found in the properties of the chemicals of components "A" and "B".

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Yoshida discloses the use of 2-methoxy-3-isobutyl pyrazine as a component of a gas-odorizing agent. However, the odor of 2-methoxy-3-isobutyl pyrazine **does not act as a warning signal**. In fact, the odor property of 2-methoxy-3-isobutyl pyrazine is that of a green bell pepper, potato product, coffee, galbanum and green peas (see Attachment A). People know that these odors typically emanate from kitchen and food areas. **Thus, these odors would not act as a warning signal for people who smell escaped gas.**

Additionally, Applicants note that 2-methoxy-3-isobutyl is not the main source of odor in the compositions disclosed by Yoshida. Instead, Yoshida discloses the **use of sulfides and mercaptans to create odor.**

**The present claim requires that the odorizing composition to be free of sulfur components.**

Furthermore, the claim requires component B to have a specific range of boiling point and molecular weight. This is in view that the odorizing composition must have high volatility and evaporate leaving little residue.

#### **Claim 9**

Claim 9 is directed to **a combustible gas** having: a) an odorless gas and 2) an odorizing composition having A, B (having specific boiling point and molecular weight), and optionally C.

The arguments set forth for Claim 1 apply to this claim.

#### **Claim 19**

Claim 19 is directed to a method of imparting odor to an odorless gas by adding an odorizing composition having A, B (limited by formula I and **not limited by a specific boiling**

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point and molecular weight), and optionally C.

The cited reference fails to teach that component B has 1) a structural formula I and 2)  $R^1-R^4$  is either a hydrogen or a  $C_1-C_4$  alkyl group.

#### **Claim 22**

Claim 22 is directed to a **combustible gas** having: a) an odorless gas and 2) an odorizing composition having A, B (limited by formula I and **not limited by a** specific boiling point and molecular weight), and optionally C.

The arguments set forth for Claim 19 apply to this claim.

#### **Claim 24**

Claim 24 is directed to an **odorizing agent** having: a) an odorless gas and 2) an odorizing composition having A, B (limited by formula I and **not limited by a** specific boiling point and molecular weight), and optionally C.

The arguments set forth for Claim 19 apply to this claim.

For the reasons set forth above, Applicants respectfully request that the Examiner withdraw the rejection in view of the Yoshida reference.

#### **Issue 2**

Applicants note that it is the Examiner's position that the disclosure by Yoshida et al. of 2-methyl-3-isobutyl pyrazine, **even if a typographical error**, still provides a proper basis for maintaining his previous rejection of claims as being

anticipated and/or obvious.

During the response to the final Office (Amendment E) Applicants provided the Examiner with a copy of the Japanese Application No. JP19840198752, which issued as JP 60-92396. The Japanese '396 Patent corresponds to the priority document. Applicant submitted the Japanese patent for the Examiner's review as a proof that the English translation of the priority document includes a translation error.

Unfortunately, the Examiner did not consider Applicant's arguments persuasive. The Examiner's position in the Advisory Action, is that it would appear unlikely to **one skilled in the art** that the same error would occur twice in the same document.

Applicants agree with the Examiner that a person **skilled in the art** will not repeat the same error twice in a document. Unfortunately, Applicant does not agree with the Examiner in that **a translator is a person skilled in the art**. Please note that the majority of Attorneys relay in translation companies to translated documents. The translator simple translate from one language to another. In most the cases, the translator do not have a technical background, but rather a knowledge of two different languages.

Furthermore, please note that the chemical art is very complicated specially when dealing with chemicals structures and chemical names.

**Applicants respectfully repeat their previous request that the Examiner take the attached document to a Japanese translator at the USPTO and verify that the priority document does not refer to "2-methyl-3-isobutyl pyrazine" but instead to "2-methoxy-3-isobutyl pyrazine".**

The Japanese translator will confirm that there is a

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translation error in the US Patent. The mention of 2-methyl-3-isobutyl pyrazine by Yoshida on column 6, line 57 is a typographical error. The word "**methyl**" is substituted for the correct word, "**methoxy**". The use of the word "**methyl**" is a clear error because the entire patent is directed to the odor boosting qualities of 2-**methoxy**-3-isobutyl pyrazine.

For example, the paragraph at the bottom of column 6 discusses the results of the experiments listed in the tables in columns 5 through 6. The "Formulas" section of the tables does not mention 2-**methyl**-3-isobutyl pyrazine. Instead, 2-**methoxy**-3-isobutyl pyrazine is listed as an odor booster when used in combination with 4-methyl-4-mercapto-2-pentanone. Further, the benefits of using 2-**methoxy**-3-isobutyl pyrazine are described in the accompanying descriptive sentences in column 6. Twice in the paragraph, the phrase "4-methyl-4-mercapto-2-pentanone and/or 2-**methoxy**-3-isobutyl pyrazine" is mentioned to describe the results of the tests. Mysteriously, the third time that the phrase is used, the word "methyl" is substituted for "methoxy."

2-**methoxy**-3-isobutyl pyrazine is mentioned 34 times in Yoshida, and 2-**methyl**-3-isobutyl pyrazine is mentioned just 2 times (other instances at column 4, line 37). The mere mention of 2-**methoxy**-3-isobutyl pyrazine does not teach the present invention because there is no enablement of 2-**methoxy**-3-isobutyl pyrazine in Yoshida.

Applicants believe that all the claims are now in conditions for allowance.

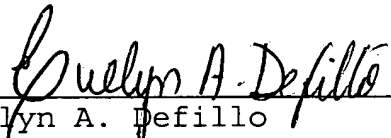
U.S. Application No.: 09/762,847  
AMENDMENT F AND REQUEST FOR A TELEPHONE INTERVIEW

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Favorable consideration and early issuance of the Notice of Allowance is respectfully requested. The Examiner is respectfully requested to contact the undersigned at the indicated telephone number to arrange a telephone interview.

Respectfully submitted,

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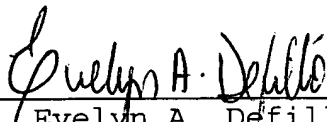
  
Evelyn A. Defillo  
Registration No. 45,630

Date: May 9, 2005

**CERTIFICATE OF MAILING AND AUTHORIZATION TO CHARGE**

I hereby certify that the foregoing AMENDMENT F AND REQUEST FOR A TELEPHONE INTERVIEW for U.S. Application No. 09/762,847 filed March 12, 2001, was deposited in first class U.S. mail, with sufficient postage, addressed to: Mail Stop: RCE; Commissioner for Patents; P.O. Box 1450; Alexandria, VA, 22313-1450, on May 9, 2005.

The Commissioner is hereby authorized to charge any additional fees, which may be required at any time during the prosecution of this application, except for the issue fee, without specific authorization, or credit any overpayment, to Deposit Account No. 16-0877.

  
Evelyn A. Defillo



## Attachment A

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Enter a Chemical Name, CAS Number, Molecular Formula or Weight.  
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## 2-isobutyl-3-methoxypyrazine [24683-00-9]

Synonyms: 2-Isobutyl-3-, 5 or 6-methoxy-pyrazine; 2-Isobutyl-3-methoxypyrazine; 2-Isobutyl-3-methoxypyrazine, cont. 20% 2-isobutyl-6-methoxypyrazine; 2-Methoxy-3(6)-isobutyl-pyrazine; 2-Méthoxy-3-isobutylpyrazine; 3-Isobutyl-2-methoxypyrazine; Pyrazine, 2-methoxy-3-(2-methylpropyl)-;

	<b>Tools</b> <a href="#">BUY AT CHEMACX.COM</a> <a href="#">VIEW CHEMDRAW STRUCT</a> <a href="#">VIEW CHEM3D MODEL</a>  <b>CAS RN Lookup</b> <a href="#">THE MERCK INDEX</a> <a href="#">NCI DATABASE</a>	<b>OpenChem</b> <a href="#">VIEW LINKS</a> <a href="#">ADD COMPOUND</a> <a href="#">ADD/CHANGE PROPERTY</a> <a href="#">ADD LINK</a>
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Formula	C <sub>9</sub> H <sub>14</sub> N <sub>2</sub> O	Molecular Weight	166.2224
CAS RN	24683-00-9	Melting Point (°C)	
ACX Number	X1011745-2	Boiling Point (°C)	
Density		Vapor Density	
Refractive Index		Vapor Pressure	
Evaporation Rate		Water Solubility	
Flash Point (°C)	80	EPA Code	
DOT Number		RTECS	
Comments	Flavor constituent of green bell pepper.		

More information about the chemical is available in these categories:

[Biochemistry](#)    [Chemical Online Order](#)    [Misc](#)    [Physical Properties](#)

Biochemistry (1)

FlavornetInformation about this particular compoundChemical Online Order (1)Available Chemicals ExchangeInformation about this particular compoundMisc (3)UWI-Mona Chemistry LecturesInformation about this particular compoundInformation about this particular compoundThis compound in PDB formatPhysical Properties (7)ABCR GmbH&Co KG2-Isobutyl-3-methoxypyrazine, 98%Aroma ChemicalsInformation about this particular compoundInformation about this particular compoundFragranced Products Information NetworkInformation about this particular compoundGalactic Industries Corporation Spectral DatabaseFTIR SPECTRUM of 2-ISOBUTYL-3-METHOXYPIRAZINE, 99+%The Good Scents CompanyInformation about this particular compoundInformation about this particular compound

Enter a Chemical Name, CAS Number, Molecular Formula or Weight.

Use \* for partial names (e.g. ben\*).

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